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BOUNDLESS ENERGY™

# Summer Preparedness 2023

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# Executive Summary

- Prepared with adequate resources and infrastructure to meet customer needs during Summer 2023
- Taking proactive steps across the organization to prepare for summer weather related events
- Communications plan in place to engage with customers for demand response events and severe weather



# Indiana Michigan Power Resource Diversity

## Diverse set of Generation Resources and PPAs:

- 2,278 MW Cook Nuclear Plant
- 2,223 MW Rockport Coal Plant
- 22 MW of Hydroelectric Power
- 35 MW of Universal Solar
- 187 MW OVEC ICPA
- 450 MW of Wind Power under PPA;
  - 100 MW from the Fowler Ridge I Wind Farm in Benton County, IN
  - 50 MW from the Fowler Ridge II Wind Farm in Benton County, IN
  - 100 MW from the Wildcat Wind Farm in Madison County, IN
  - 200 MW from Headwaters Wind Farm in Randolph County, IN

**80+%**

*Carbon-free System-wide  
Generation In 2022*

## I&M Demand-Side Resources:

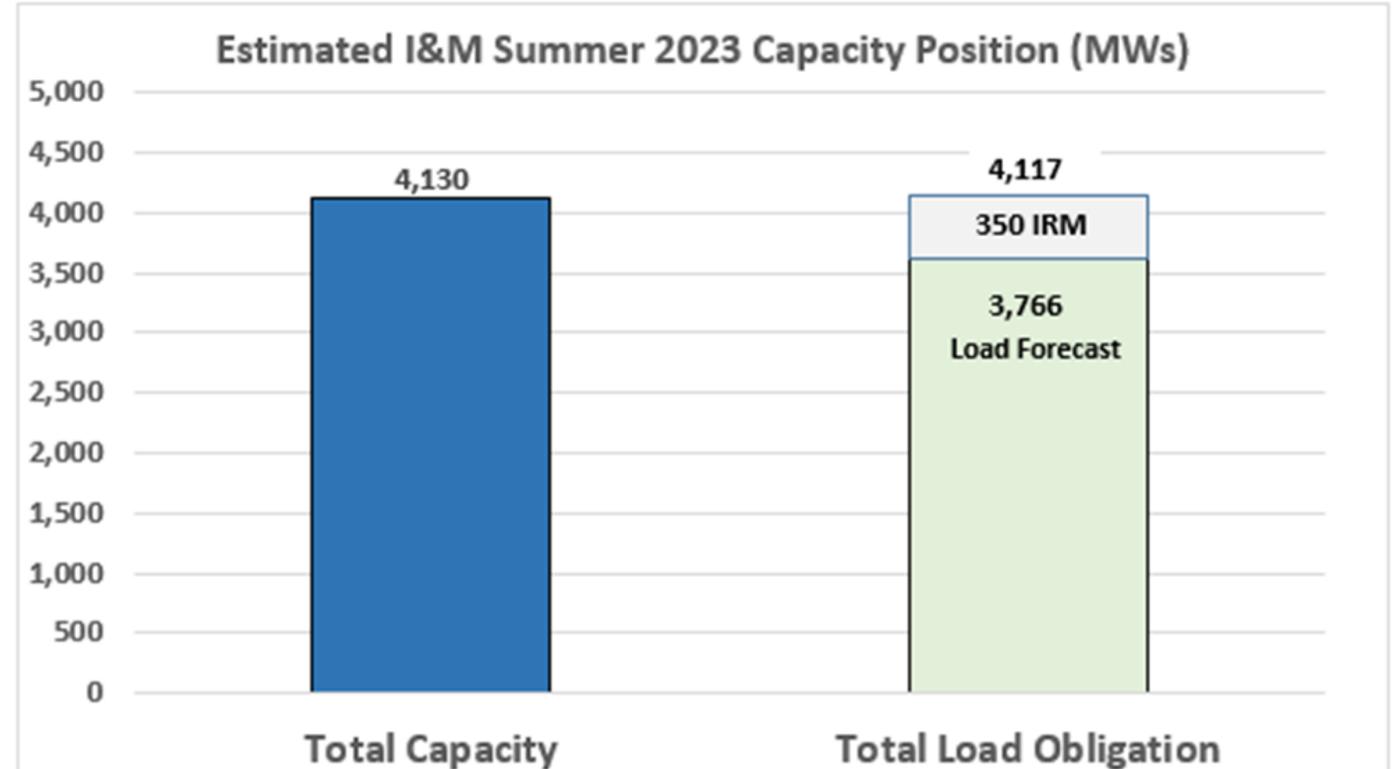
- Energy Efficiency Programs
- ~ 300 MW of Interruptible and Demand Response Load

# Summer Energy Outlook

## PJM Unforced Capacity (UCAP)

I&M has sufficient capacity to meet its load obligations for Summer 2023 with adequate reserve margin

Description	2023 Capacity (MW)
Fossil and Nuclear	3,740
Demand Response	306
Intermittent (wind, solar, hydro)	84
<b>Total Capacity</b>	<b>4,130</b>



Note: I&M's average summer peak for 2020-2022 is 3,944MW; the highest summer peak was 4,011MW in 2021

# PJM-2023 Watch List

- I&M does not anticipate RTO changes to impact the ability to meet 2023 summer load obligations.
- I&M is monitoring ongoing activities in PJM related to:
  - Capacity market changes in response to resource adequacy needs over next 5 – 7 years\*
  - Implementation of interconnection queue reforms for new generation resources
  - Integration of Distributed Energy Resources into capacity, energy, and ancillary service markets

\* Based on a report issued by PJM on February 24, 2023 titled “Energy Transition in PJM: Resource Retirements, Replacements & Risks

# Summer 2023 Preparation: Non-nuclear Generation

## Rockport:

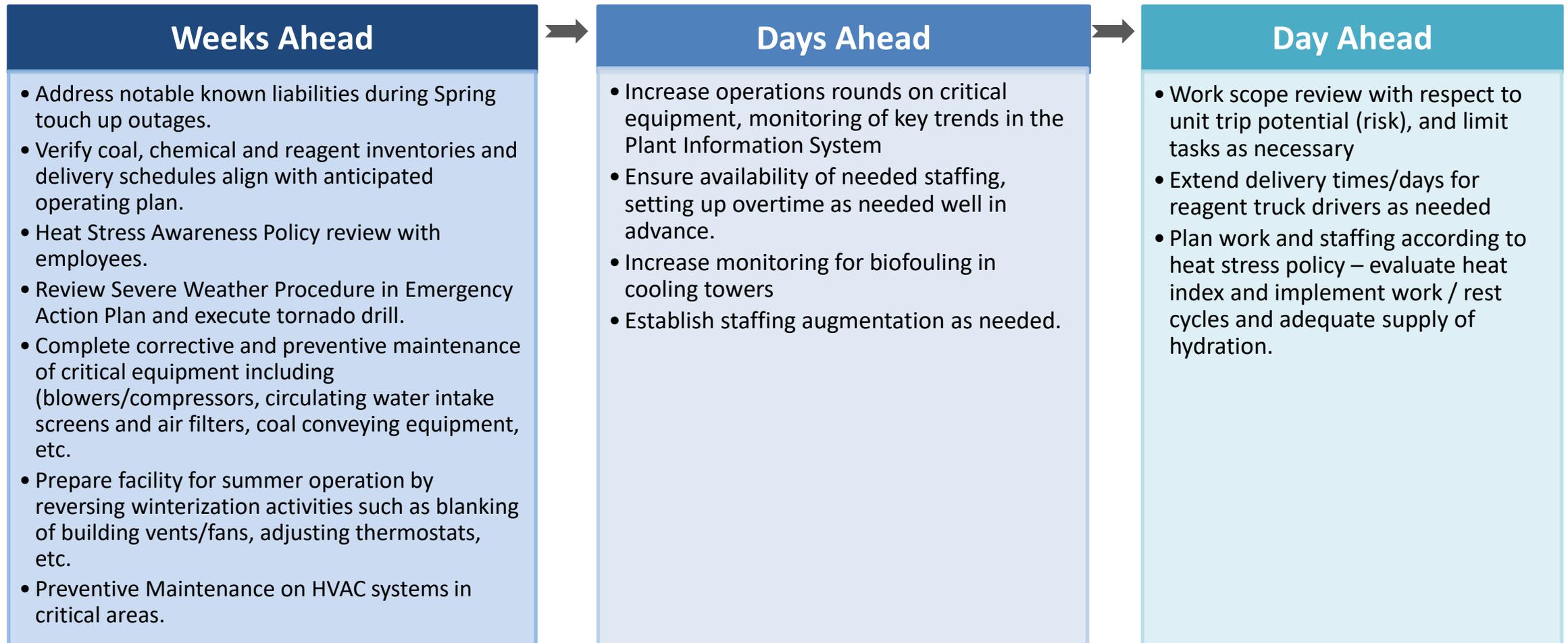
- Planned Outages: Spring outages to be complete by Mid-June 2023
- Fuel, reagent and material availability and deliveries are meeting expectations

## Other Generation Resources:

- Solar, wind, and hydro expected to be available for summer season
- Generation needs in excess of I&M's available capacity will be met through market purchases



# Generation: Proactive Management of Extreme Weather (Summer Peaking)



# Summer 2023 Preparation: Nuclear Generation

## Nuclear Generation

- **Fuel suppliers**
  - Adequate fuel supply
- **Planned/maintenance outages**
  - No Spring refueling outage
  - Preemptive cleaning of feedwater condensers (U1)
- **Severe Weather**
  - Summer readiness procedure
  - High heat, high winds, rough lake procedure
  - Elevated lake temperature procedure



# Transmission & Distribution Operations: Extreme Weather Preparations and Response

## Annual Preparedness

- AEP is embarking on a Storm Governance project, focusing on opportunities to enhance restoration strategies, I&M included.
- Weekly meeting with Regional Mutual Assistance Group (RMAG) to review issues
- Weekly meeting with AEP Storm Coord. team to review general storm preparation business.
- I&M Incident Command System (ICS) is regularly updated with role assignments and back-ups, and planned absences are reported to ensure coverage.
- ICS General Training will be reviewed in 2022. Training for individual roles will be implemented to at least the “Unit Leader” level.
- At least two “mock events” are planned to test I&M storm response.

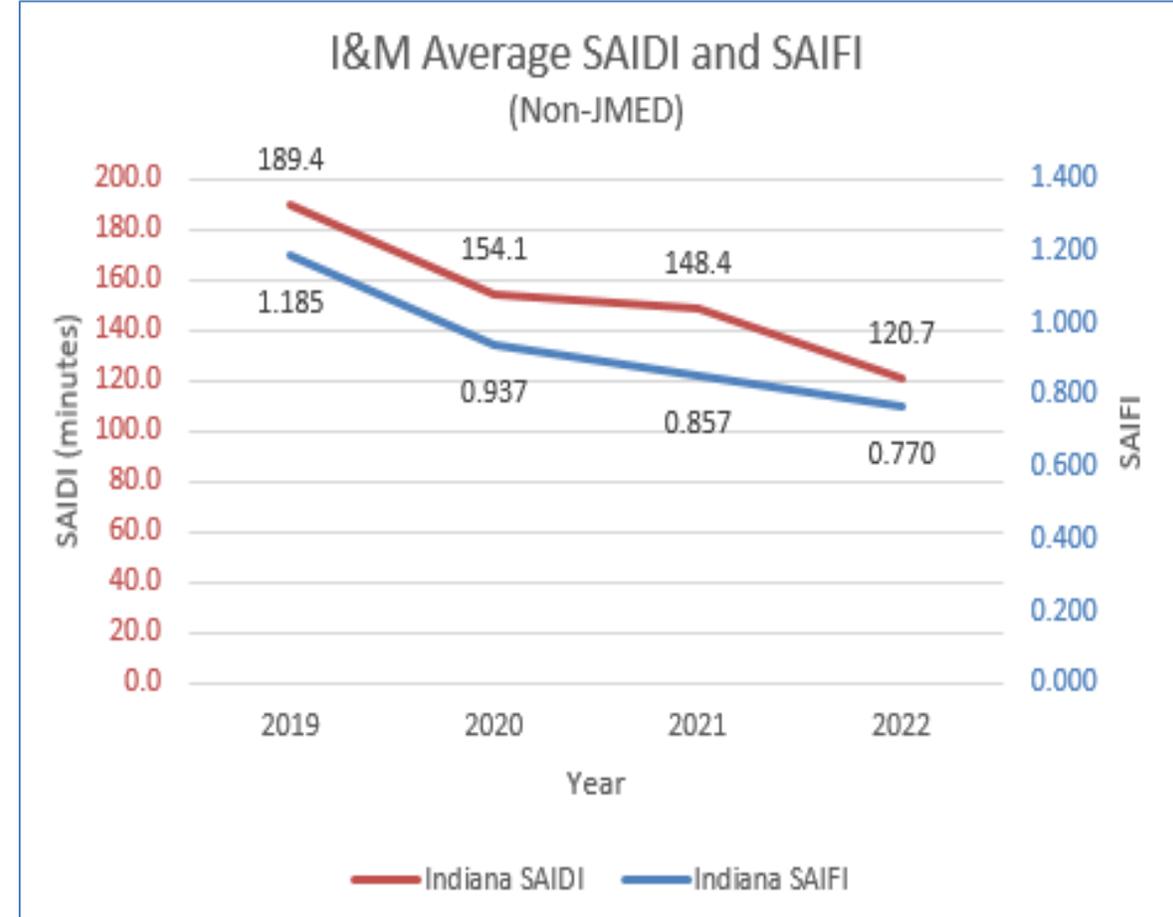
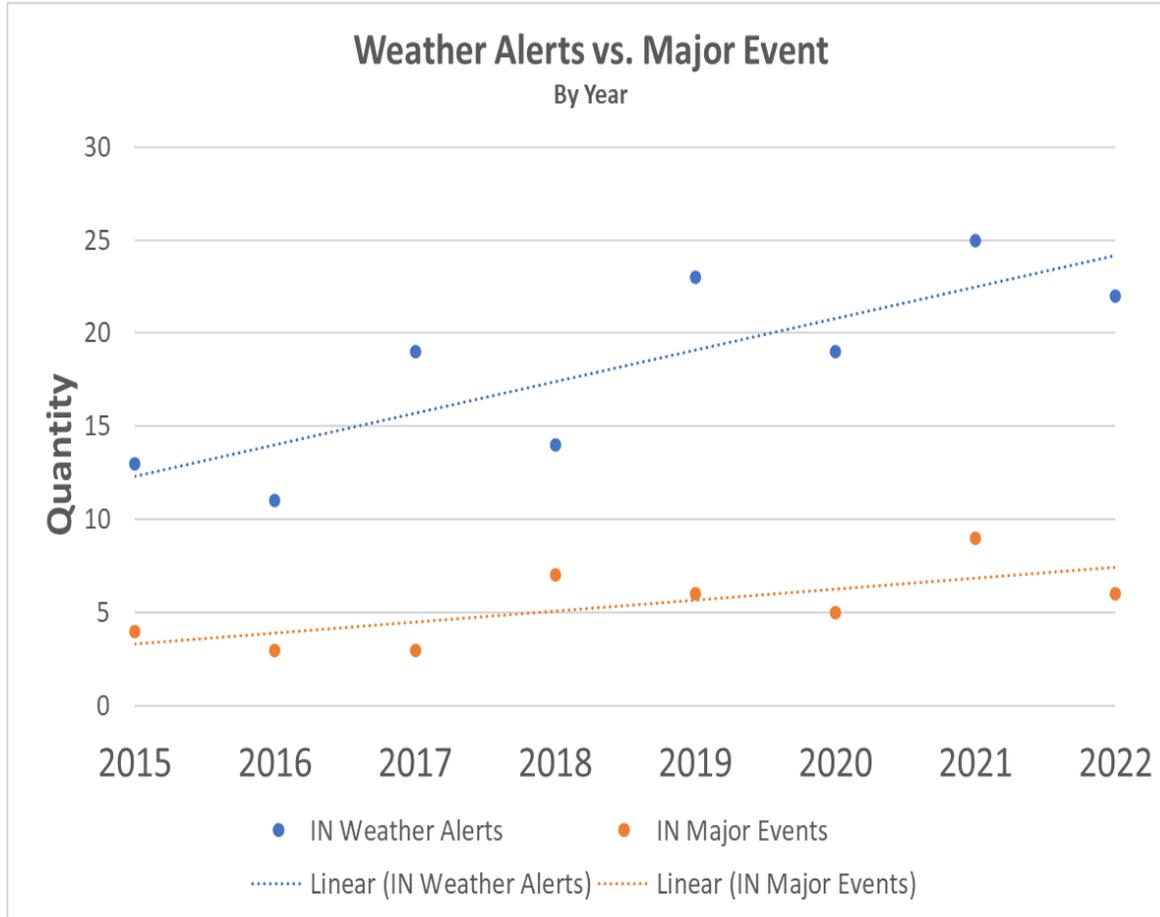
## Days Ahead

- Weather alert is received from AEP Meteorology with prediction model data for a forecasted weather event.
- AEP Mutual Assistance schedules a meeting to review.
- I&M Leadership reviews forecast.
- Based on severity of forecast, ICS is activated, internal and base load resources are put on alert, and AEP Mutual Assistance is contacted to fill outside resource requests.
- ICS Logistics and Planning sections engage to prepare. Planning section sets up structure for strategic interface with other sections and situational analysis to prepare for resource mobilization.

## Event Response

- Incident Command System begins managing restoration efforts.
- Begin hazard assessment and damage assessment as a first response.
- Utilize AMI, Grid Modernization, and other technologies to identify outages and provide intelligence into storm response planning
- Operations Section, which has been engaged, initiates active restoration based on Planning Section data.
- Event Time of Restoration (ETR) estimates are established based on field conditions, crew and material availability and provided to communications team
- IURC receives regular updates during event restoration.

# Summer 2023 Preparation: Improving Reliability & Resiliency



# March 2023 Severe Storm Event

## Pre-Event Preparations

- The I&M team closely monitored multiple weather forecasting services prior to the 3/3/23 event.
- Additional resources including mutual assistance (450 FTEs) were secured.
- Storm mode (ICS) activated just after 1 pm on 3/3/23.

## Storm Impacts

- At the peak, over 11,000 customers experienced an outage (7,409 customers in Indiana and 3,983 in Michigan) between 8pm and 9 pm on 3/3/23.
- We experienced approximately 7" of heavy wet snow and wind peak speeds approaching 60 MPH across most of the service territory.
- I&M initiated coordination with EMA and Civil Authorities early in the event.

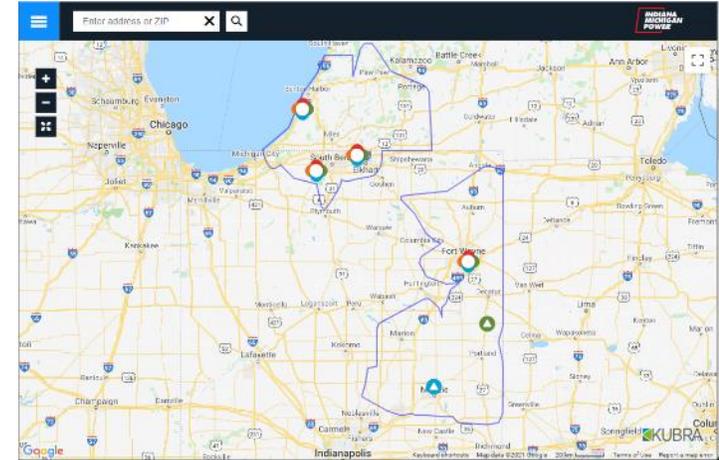
## Storm Response

- Event ETR and circuit level ETRs established early in the event.
- All customers restored within 24 hours of the onset of weather.
- I&M was able to send line and vegetation resources to sister companies on 3/5/23.



# Summer 2023 Preparation: Customer Focus / Engagement

- **Infrastructure Investments Are Making Positive Difference**
  - Positive impacts on level of impact and recovery times
  - Tree related events and failed equipment are trending down
  - Grid modernization is improving resiliency
  - Challenges remain with materials with mitigation steps in place
- **Customer Engagement During Event**
  - Social Media/One Voice-provides current “picture” of recovery
  - Mobile Alerts-provides ETR updates
  - I&M Website – provides geographical outage information
- **Demand Response**
  - Notifications sent to enrolled customers
  - Large customers contacted by customer service representatives





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# Customer Engagement Examples

**WEATHER-READY TIPS**

**Energy-saving Tips** to Help You

**OUTAGE UPDATE**

The high winds and thunderstorms that barreled through the I&M service territory last night left the tell-tale signs of its path, including downed trees and power lines. The storms knocked out power to more than 11,600 customers. Wind speeds of 68 mph in Fort Wayne and 67 mph in Muncie caused downed wires and over 70 broken poles in just those two districts. In Harlan, a small town north of Fort Wayne, there was an unconfirmed tornado touchdown.

We know you depend on us for power and we take that responsibility very seriously. Our highly trained team is *Powering the Next Response*.

More than 190 I&M line workers, assessors, forestry crews, logistic teams and support personnel are working 16-hour shifts to get your lights on as quickly and as safely as they can. To help the I&M team, mutual assistance workers are on their way. High winds are expected throughout the day and may cause power restoration delays. For the safety of our crews, bucket truck lifts cannot operate in winds over 35 mph.

For outage information, including photos of storm damage and restoration updates, follow us on [Facebook](#), [Instagram](#) and [Twitter](#).

**Assessing Damage**  
After a major storm hits, our crews quickly begin to assess the damage. Assessing the impact of the storm takes time, but it's an important part of our process to get the power back on as safely and quickly as possible.

**Stay Connected**  
**Get the Mobile App**  
Report outages, plan outages and more with the I&M mobile app.  
**Receive Alerts/Updates**  
Make sure your contact information is up to date for outage alerts and email updates.

Save energy this summer. It can be part of the day and check a few tips and work for a month, you'll notice a difference. See the [Summer Energy Tips](#) for more energy-saving tips.

A few easy ways you can save energy:

- Avoid using heat-producing appliances such as ovens and dryers during the hottest part of the day.
- Set your air conditioner thermostat to as high as you can comfortably.
- Close curtains and shades on the west and south-facing windows to block sunlight and heat during the day.

Start saving today! The more you save and potentially save on your energy bills, find products, rebates and more.

facebook

Indiana Michigan Power  
Jun 07, 2022 ·

#TipTuesday Set the fan on your central air conditioner to "on" rather than "auto." This will circulate air continuously, keeping the temperature in your home more consistent, plus help dehumidify the air.

TIP #10

POWERING THE NEXT ENERGY-SAVING IDEA

244K likes · 13.8K comments · 62.6K shares

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Indiana Michigan Power  
Mar 08, 2022 ·

#TipTuesday Use ceiling fans to help circulate air throughout the house. A ceiling fan should run clockwise during the winter and counter-clockwise in the summer.

TIP #53

POWERING THE NEXT ENERGY-SAVING IDEA

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**WEATHER-READY TIPS**

AT&T Wi-Fi 6:04 PM 35%

I&M Alerts >

Today 3:00 PM

**I&M Peak Energy Use Event Today 4-6pm. IM Power Rewards pays you to save energy during events. Turn off lights. Turn up AC temp. More tips [ElectricIdeas.com/I9](#)**

Today 6:00 PM

**I&M Peak Energy Use Event is Over. Email with your bill credit total coming soon. Thanks for saving energy. Get tips to save year-round [ElectricIdeas.com/Tips](#)**

Text Message

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# Questions

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